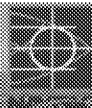


FACT SHEET

Hunters Point Naval Shipyard (HPNS)

Radiological Data Review

January 2017



This fact sheet summarizes the plan for radiological data review, evaluation, and community engagement at Hunters Point Naval Shipyard (The Shipyard/HPNS).

Please come to the community meeting about this topic February 8, 2016, etc.

Public safety is the highest priority as the Navy and its team conduct investigations and cleanup activities at HPNS. Remediation of radioactive material must be completed appropriately and the results reviewed by the Navy as well as State and Federal agencies and public stakeholders. HPNS parcels will be transferred from the Navy to the City of San Francisco only after any remedial action necessary to protect human health and the environment has been taken.

The Navy is committed to keeping the community engaged in the environmental cleanup process at HPNS and strongly encourages interested members of the community to participate. The Navy will keep public stakeholders informed of the investigation progress using a series of fact sheets, community meetings, and ongoing communication via the internet, media, and points of contact.

Commented [LL1]: Minor comment - The second part of the sentence is not an independent clause, so it should not be separated by a comma. You could alternatively say, "and the Navy strongly encourages . . ." or start a new sentence.

What are the Radiological Data Issues?

As a result of The Navy's oversight of contractors conducting cleanup work at HPNS the Shipyard caught, Tetra Tech EC, a Navy contractor, was caught misrepresenting soil samples. Tetra Tech EC claimed that the soil samples had been taken after remediation (cleanup), when they were in fact from an area that was known to not be affected by Navy activities.

Upon discovery of the misrepresentation, the Navy notified the Nuclear Regulatory Commission (NRC) and the California Department of Public Health (CDPH) who oversee Tetra Tech EC's radiological licenses. An internal investigation was initiated, the replacement data was collected with rigorous oversight, and corrective actions were taken, including new cleanup. The US Environmental Protection Agency (EPA) and the State Department of Toxic Substances control also reviewed these efforts.

Since After the Navy and the NRC concluded these earlier investigations, former workers at HPNS have made allegations about Tetra Tech EC activities, which include the following:

- Potentially contaminated soil samples were swapped for clean soil samples;
- Potentially contaminated soil was dumped into open trenches in other areas around HPNS;
- Falsified data reports were prepared and submitted to the government; and
- Computer data regarding radiation levels was tampered with to indicate lower levels of radiation.

All of these allegations are being thoroughly investigated by the Navy. Results will be made available to the public when the investigation is completed.

The integrity of environmental data is vital to ensuring that the cleanup at HPNS the Shipyard is completed successfully and chemicals remaining do not pose a threat to human health. The Navy is conducting a complete review of all of Tetra Tech EC's radiological cleanup work to ensure that the property is in fact safe for human health and the environment.

Commented [LL2]: Minor comment – style suggestion to use active voice instead of passive voice to be more direct and easy to follow.

What has Been Done So Far?

As a result of the misrepresentation by Tetra Tech EC, the Navy initiated comprehensive review of radiological data from soil samples.

Commented [KK6]: Insert a graphical representation of data

- More than 70,000 results were reviewed;
- More than 130 building and land areas were resampled with independent in-person oversight;
- Additional soil excavations were completed to clean up areas where misrepresentation occurred;
- New surveys were performed (static gamma measurements, systematic soil samples) with independent in-person oversight; and
- After the above new cleanup rework, the final data independently confirmed radiological contamination was cleaned up appropriately remediated.

The Navy has postponed transfer of property from the Shipyard/HPNS to the City of San Francisco until the Navy can confirm the radiological contamination was

Commented [LL3]: "Since" can mean "after" or it could also mean "because." Using "after" is more clear.

Commented [LL4]: The NRC did not conclude its enforcement action until Sept. 2016, which was after Mr. Smith's NBC appearance. The Navy is still investigating.

Commented [LL5]: I think you mean RASO's previous work since 2011 and the NRC's enforcement action, which did not conclude until 9/2016. The Tetra Tech internal investigation report was published in 2014. But now the Navy and other agencies are still doing investigations. So that could be confusing. Alternatively, you could say "2011 – 2016" or "pre-2016."

Commented [LL7]: Suggestion to add clarity.

Commented [LL8]: Plain language

appropriately remediated/cleaned up. Confirming radiological data will require additional, in-depth evaluation beyond the 70,000 sampling results already reviewed at HNS the Shipyard and will require new independent sampling.

Who's Helping?

The Navy assembled a "Tiger Team" – a group of technical experts selected for their knowledge and experience -- to further evaluate the integrity of radiological data. The Tiger Team includes representatives from the Navy, EPA, State of California Department of Toxic Substances Control (DTSC), CDPH, and the City of San Francisco.

A team of nationally recognized experts, completely independent of Tetra Tech EC, has been contracted to support the Tiger Team and perform the radiological data evaluation and confirmation investigation. This team includes organizations with extensive radiological experience and expertise in health physics (radioactivity), environmental sampling, analysis of samples, measurement of radioactivity, and statistical analysis of environmental data (Cabrera Services, Perma-Fix Environmental Services, SC&A Environmental Services and Consulting, and CH2M).

What Happens Next?

Data Evaluation Objectives and Approach

The next step is to evaluate the existing radiological data and identify areas of concern. Once areas of concern have been identified, additional investigations will be conducted to determine if existing radiological data supports the decision that adequate remediation was completed. If existing data are not adequate, multiple

lines forms of evidence will be collected to demonstrate whether or not demonstrate human health risk from radioactivity at HPNS is within regulatory limits.

Due to the large amount of data and reports from the radiological cleanup, the soil evaluation will be divided into two phases.

Phase 1: Identify areas of concern. Nationally recognized experts will start by examining existing soil data that was used to determine the protectiveness success of HPNS radiological cleanup and will identify areas of concern. The Tiger Team, with support from the team of nationally recognized experts, will review allegations made by former workers and run various statistical tests on the data as one of several approaches to identify any potential additional signs of falsification of data in order to determine if there was any validity to the claims. The results of the statistical evaluation will determine the help identify additional areas of concern and provide the number and type of additional investigations and/or additional cleanup required to support safe transfer of property.

Phase 2: Conduct detailed evaluation of areas of concern and collect and test new soil samples confirmation sampling. A detailed evaluation of the areas of concern identified in Phase 1 will be conducted. Any discrepancies with the activities performed during cleanup and the resulting data will be documented.

Results of new soil samples may point to new areas to review and evaluate in the previously collected data.

Commented [LL9]: Several community members have expressed suspicion that the "Tiger Team" referenced in a Congressional letter is a secret group designed to implement a deal made behind closed doors to rush the investigation in a manner that would not provide sufficient protection for public health. Clarification could help. On the other hand, repeating this term could continue the confusion.

Commented [LL10]: Minor grammar comment – comma should be removed because the compound object of the preposition "with" is "experience" and "expertise," which should not be separated by a comma.

Commented [LL14]: The original language could be misinterpreted to mean that statistical tests alone will be sufficient verify claims of workers and to limit the scope of additional future investigation.

Commented [LL15]: This could be interpreted as the Navy prejudging the outcome.

Commented [LL11]: I understand that you are applying a series of logic tests. This language could confuse a layperson and is unnecessary to your point.

Commented [LL12]: Language more accessible to layperson.

Commented [LL13]: Original language could be interpreted as implying the Navy is prejudging the outcome.

Commented [BA16]: Graphic to be updated and/or replaced to include Phase 1 and Phase 2 activities.

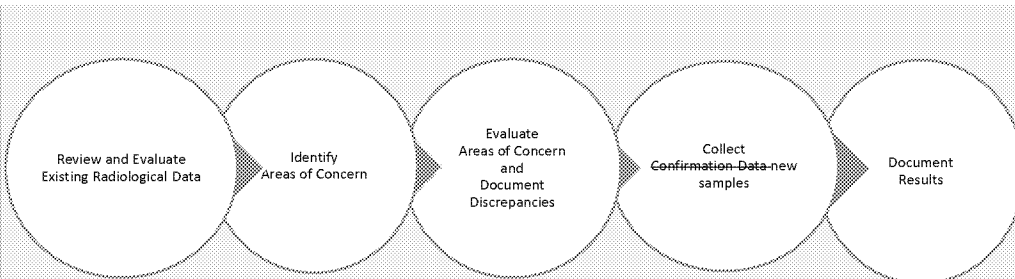
Commented [LL17R16]: That's a great idea. Maybe you could put make the 1st 3 circles Phase 1 and make them one color. The 4th & 5th circles could be Phase 2 and make them a different color. Also, I crossed out "confirmation" because that could give the appearance of prejudging the outcome. I replaced "data" with "new samples" to be clear that this circle means actual field work to distinguish it from the activity of gathering past data or reports.

Commented [LL18]: This language appears to presume the data are innocent until proven guilty, when in fact, prior falsification has been verified already in multiple instances.

Commented [LL20]: The sequencing is confusing. This is in a section called "additional phases." This could be interpreted as a third phase. But most of these appear to be maybe work that would be in Phase 1. If so, then these should be in the above section about Phase 1. It could be simpler to label Phase 1 as desk work of gathering existing data and number-crunching to look for more areas of potential concern. Then Phase 2 can be described as determining priority areas for new independent sampling in the field and doing the sampling itself. And then you could put an arrow pointing both ways between the two and explain that this could be an iterative process, i.e. findings from field sampling could lead to more desk work of researching previously collected data. And you could call the work on buildings Phase 3.

Commented [LL19]: Call this Phase 3?

Commented [LL21]: Similar edits to above on the graphic. Explanation is in the above reply to Amy Brand's comment. In addition, this sounds like Phase 2. So should this bullet be moved to become part of the Phase 2 description above?



Additional Phases of Evaluation

The data evaluation and confirmation approach depends on multiple forms of evidence. The initial investigation focuses on identifying suspect data using statistical tests, but this is not the only evidence that will be used to determine where to sample. If the existing data support the remediation decisions that were made,

Additional phases of investigation include:

- Evaluating other types of data in addition to soil sample data, such as building survey data;

- Focusing investigations in areas where health risks were greatest prior to remediation activities;
- Evaluating documentation prepared in the field by following the paper trail to identify or confirm suspect records;
- Evaluating radiological data collected from (1) areas near sites with suspect data, or from (2) areas where surveys were performed just before or just after surveys that generated suspect data; and
- Collecting new samples at the site additional data to confirm or supplement compare with previously reported radiological results.

How Will Results Be Made Public?

Results of both phases of the data evaluation and confirmation sampling will be documented in a detailed confirmation report. The report will be available to the public at the two locations described in the box at right. In addition, stakeholders and the local community will be kept informed by news releases, a fact sheet, website updates, and community meetings.

Please come to the community meeting February 8, 2016, etc.

Where Can I Get More Information?

Program Information:

For information on cleanup at HPNS-the Shipyard, contact:

Derek Robinson

BRAC Environmental Coordinator
Department of the Navy BRAC Program Management Office
West 33000 Nixie Way, Bldg. 50, 2nd Deck
San Diego, CA 92147

(619) 524-6026 or [[HYPERLINK](#)
"mailto:derek.j.robinson1@navy.mil"]

To be added to the HPNS mailing list or for additional information, email or call the HPNS cleanup team:

[[HYPERLINK "mailto:info@sfhps.com"](#)] or HPNS Info Line:

(41
5)
29
5-
47
42

Reports Are Available For Review:

City of San Francisco Main Library

5th Floor Government Information Center
San Francisco, CA 94102
(415) 557-4400

Hunters Point Naval Shipyard Site Trailer

(near the Shipyard/HPNS security entrance)
690 Hudson Avenue
San Francisco, CA 94124

Hunters Point Naval Shipyard Navy Website

[[HYPERLINK](#)
"http://www.bracpmo.navy.mil/brac_bases/california/former_shipyard_hunters_point.html"]

USEPA website:

DTSC Envirostor: